

ABSTRACT

VSB reception system with a frequency domain equalizer including a demodulating part for receiving, converting, and demodulating a signal, a frequency domain equalizing part for equalizing the demodulated signal for removing a distorted component from the demodulated signal, and a noise removing part for (a) receiving the equalized signal, (b) calculating a reference error signal that is a difference between the equalized signal and the signal having the noise removed therefrom, (c) calculating an error signal that is a difference between the reference error signal and the extracted noise signal, (d) renewing parameters with reference to the reference error signal and the error signal, and (e) calculating a difference between the equalized signal and the extracted noise signal, to provide a signal having the noise removed therefrom.